

ABSTRACT

A technique is disclosed for detecting a turbo pump drive state in a tendetron accelerator that accelerates an ion beam to implant ions onto a semiconductor wafer. In particular the method of detecting a turbo pump driving state in the accelerator includes the 5 steps of detecting a current applied to the turbo pump in the accelerator; converting the detected current to an optical signal to transmit it through an optical fiber; converting the optical signal transmitted through the optical fiber to an electric signal; displaying the current value of the converted electric signal; comparing the current value of the converted electric signal with a setting current value to generate an interlocking signal when the current value 10 is out of a given range of the setting current value; and cutting off a power supply of the tendetron accelerator in accordance with the interlocking signal.